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M/023/007

January 12, 2001

Mr. Don Ostler
Director
Utah Division of Water Quality
288 North 1460 West
P.O. Box 144870
Salt Lake City, Utah 84114-4870

RE: North Lily Mining Company - Post Closure Fluid Management System (PCFMS) Plan: Submittal of Final Sizing, Location and Related Information; Topographic and Percolation Test Data; and Response to December15, 2000 Conditional Approval Letter

Dear Mr. Ostler:

This letter and the referenced attachments represent North Lily Mining Company's (North Lily) response to the Division of Water Quality's (DWQ) letter of December 15, 2000 of conditional approval for the Final PCFMS at North Lily Mining Company's Silver City, Utah facility. JBR Environmental Consultants, Inc. (JBR), as consultant to North Lily, has prepared and now submits this letter response on behalf of North Lily. North Lily understands and accepts the conditions of final approval for the PCFMS set forth in the subject letter from DWQ. The supplemental information requested prior to system construction is provided below.

Condition 2 requires submittal of "as-built" drawings for the proposed equalizing basins. Attachment 1 contains the manufacturer-provided standard "as-built" drawing for the selected equalizing basin. A 1250-gallon, reinforced concrete tank (septic tank) is proposed. This tank does not meet the tank capacity requirements set forth in R317-5.2.2; to do so for a flow of even 5 gpm would require a tank with a capacity of 6525 gallons (almost a small swimming pool). Since the effluent entering the tank will have a low solids content, capacity for storage of sludge or a large quantity of sediment will not be required. While the water is being pumped from the pregnant solution pond, little sediment is anticipated to be carried to the equalizing basin adjacent to the leachfield. When gravity flow from the pad margin begins, the second basin will be installed adjacent to the pad margin to receive pad flow and provide primary sediment collection and clean-out capability.

Regarding *Condition 3*, North Lily and JBR concur that percolation conditions in the vicinity of percolation test E are not suitable for leachfield operation; therefore, leachfield construction is not proposed in this area.

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With regard to *Condition 4*, four supplemental percolation tests and a topographic survey have been conducted in the area proposed for leachfield construction. The percolation tests were conducted in areas that, based on topography, would enable construction of the equalizing tank and drainfield such that leach pad draindown effluent would flow by gravity, in a pipeline with an overall slope of at least 1 percent, to the tank. The hand-drawn topographic map with percolation test locations and a table showing the results of the percolation tests are provided in Attachment 2. An arbitrary site elevation datum of 100 feet was established for the site at the survey base station. Percolation test results are discussed below.

Per *Condition 5*, final sizing of the PCFS, "...incorporating infiltration field location, design volume and flow rate..." are presented below.

As required in *Condition 6*, North Lily hereby requests DWQ's approval of construction of the leachfield as modified and described in this letter. The proposed construction schedule is provided below.

A plan for operation and maintenance of the leachfield and related facilities, as required in *Condition 7*, will be submitted to DWQ for approval prior to system start-up.

Supplemental Percolation Test Results

Four supplemental percolation tests were conducted in backhoe pits designated F, G, H, and I, as shown on the map in Attachment 2. The pits were excavated to approximately the same elevation so that each percolation test was performed at an elevation approximating that of the proposed drainfield. Note that the elevations shown on the topographic map represent the tops of the test pits. Using the individual percolation rates for each of the four tests, the capacity of the leachfield described in the Final PCFMS report (and shown schematically on the topographic map in Attachment 2) would range from 7.2 to 10.6 gpm.

Final System Location, Design Volume, Flow Rate, and Equalizing Basins

The proposed location for the leachfield is west of the barren and overflow ponds, as shown on the map in Attachment 2. The east side of the leachfield would be located east of the existing access road ("dirt road" on the topographic map) and the southwest corner of the leachfield would approach within 30 feet of the right-of-way for U.S. Highway 6. The access road would be closed by installing earthen berms on either side of the leachfield. Alternate vehicle access to the solution ponds is available from U.S. 6 a short distance further south.

Terrain in the area is sloping, as the topographic map shows. Rather than constructing the leachfield on two or more levels, as the terrain would dictate, the surface would be reduced to a flat surface having an approximate elevation of 85 feet using a bulldozer. Some of the excavated soil would be used for the road closure berms previously discussed and the remainder would be stockpiled for use in reclaiming the solution ponds in the spring.

The leachfield would be constructed as described in the final PCFMS. To overcome frost/freezing concerns, all pipelines and distribution lines would be buried at least three feet. Leachfield trenches would be constructed at a depth of approximately four feet, resulting in a drainfield elevation of approximately 81 feet. The invert elevation for the distribution box outlet would then be set at this approximate elevation. The elevation of the inlet invert would be 2.5 inches greater, per the tank design (Attachment 1). The overall drainage gradient from the pad margin, where the elevation is approximately 98.5 feet, to the distribution box inlet would be approximately 5 percent.

The design volume would be set at maximum of 7 gpm. Although the proposed leachfield location is approximately centered on pit H, which had a permeability of 3.38E-03 and would support a leachfield capacity of 10.6 gpm, test pits I and B, located further to the north, each had permeabilities of approximately 1.8E-03, which would provide a leachfield capacity of between 7 and 8 gpm. Accordingly, and in order to be conservative, the infiltration rate of 7 gpm is proposed.

Proposed Construction Schedule

Construction would begin as soon as possible following DWQ approval. A tentative construction start date of January 18 is proposed. We estimate construction of the trenches, delivery of pipe and gravel, and installation of the drainfield will take one to two weeks. During that time, the septic tank and submersible pump and related sump materials would be ordered and, hopefully, arrive on site. We estimate an additional week would be required for installation of the sump pump and the septic tank. Construction would then be completed by mid-February.

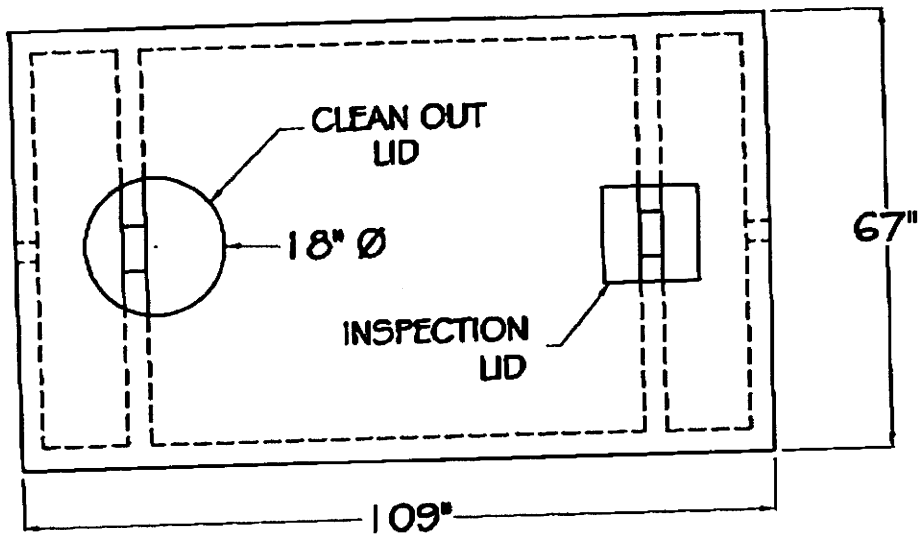
Please call the undersigned with any questions you may have.

Sincerely,

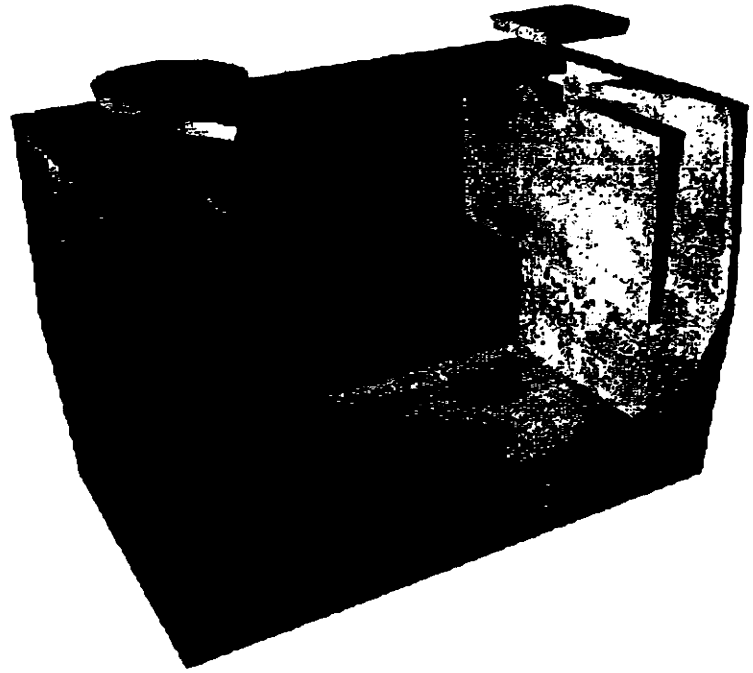
Robert J. Bayer
Managing Principal

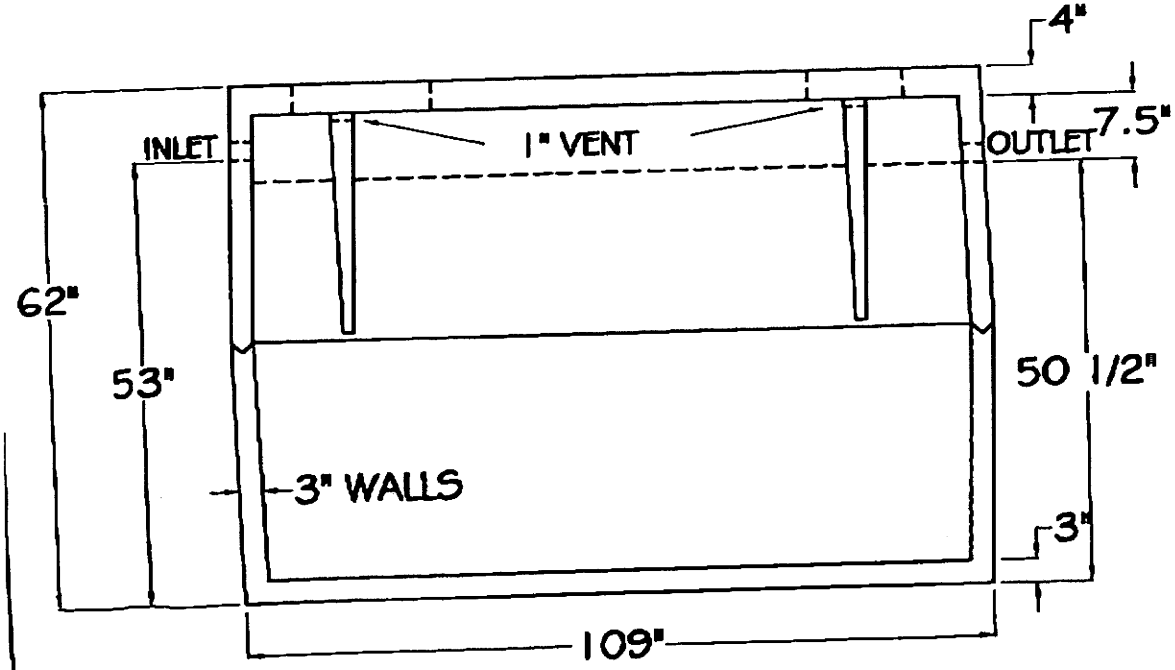
cc: Dennis Frederick, DWQ
Fred Pehrson, DWQ
Beth Wondimu, DWQ
Mary Ann Wright, Division of Oil Gas and Mining
Wayne Hedburg, Division of Oil Gas and Mining
Stephen Flechner, North Lily Mining Company
Mike Keller, VanCott Bagley

ATTACHMENT 1
Manufacturer's As-built Drawing
Equalizing Basin



Top View





Side View

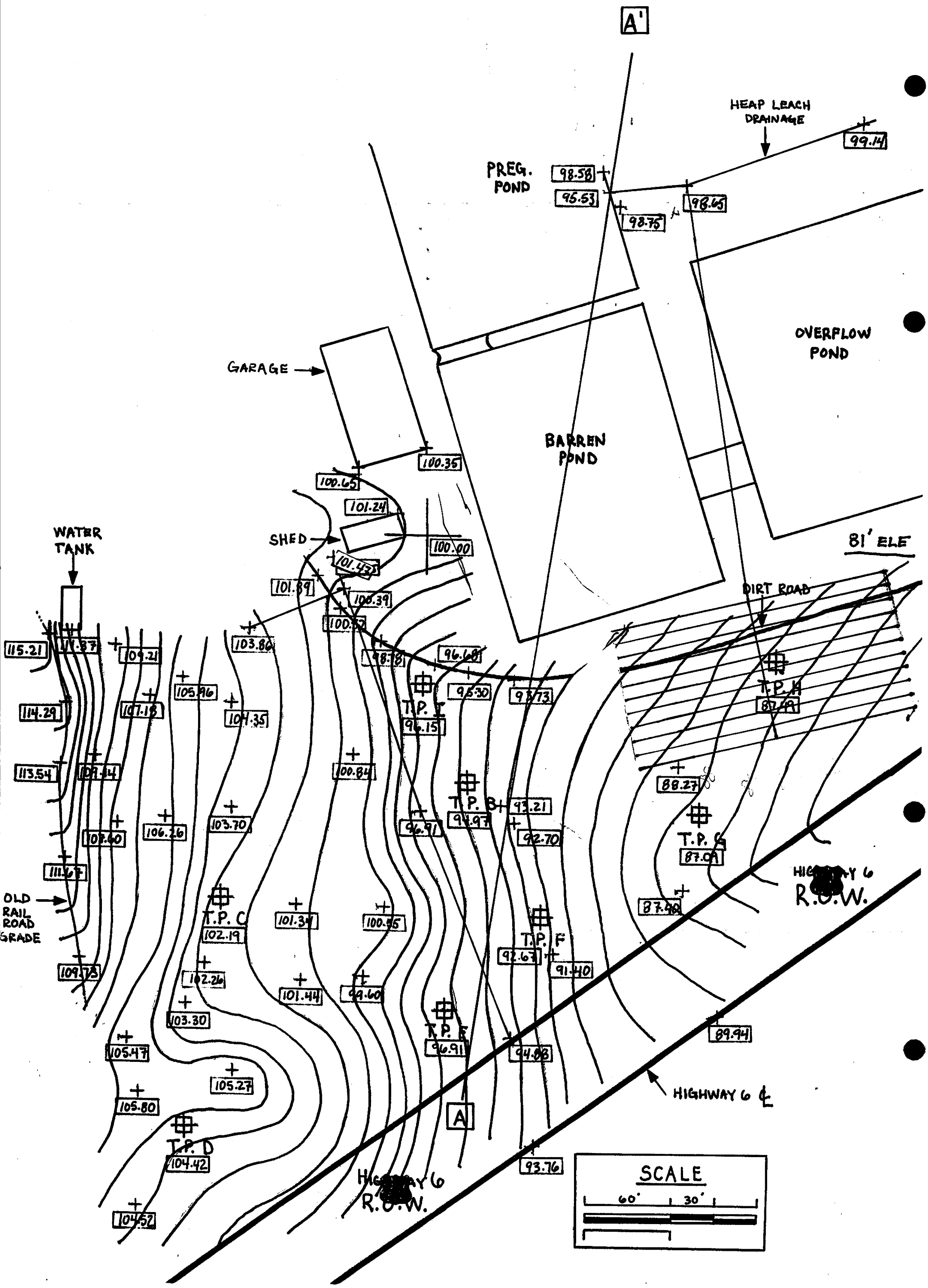
BURIAL VAULT
THORPE
CONCRETE PRODUCTS

1250 Gallon Two-piece Septic Tank
Capacity: 1250 Gallon
Weight: 9000 Pounds
Excavation: 11' x 7'6"
Flow Line 4'5"
Butyl Rope Sealant
6x6-6x6 Welded Wire Reinforcement
#4 Rebar @ 12" o/c Across Lid Span
Concrete 4000 PSI

ATTACHMENT 2
Topographic and Facility Location Map
and Supplemental Percolation Test Results

(C)

NORTH LILY DRAIN FIELD TOPO MAP



Pit	Drop	Percolation Rate (cm/sec)	Min/Inch	Gal/Ft2/Day	Gal/Day	Gal/Min
Pit F						
	2.938 inch/30 min 5.876 inch/hr	3.38E-03	11.16	1.497	2263.4	10.6
Pit G						
	2.146 inch/30 min 4.292 inch/hr	3.09E-03	13.97	1.134	1714.5	8.03
Pit H						
	2.938 inch/30 min 5.876 inch/hr	3.38E-03	11.16	1.497	2263.4	10.6
Pit I						
	2.50 inch/30 min 5.001 inch/hr	1.76E-03	21.01	1.021	1543.4	7.23